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**APR 21 1998**

April 7, 1998

**Federal Communications Commission  
Office of Secretary**

Ms. Magalie R. Salas-Secretary  
Federal Communications Commission  
Washington, DC 20554

Re: Attached Engineering Exhibit in support of  
Amendment of Section 73.202 (b)  
FM Broadcast Stations  
(Middlebury and Berlin, Vermont)  
WGTK (FM) Middlebury, VT Dynamite Radio, Inc.

To: Chief, Allocations Branch (Mass Media Bureau)

Dear Ms. Salas:

On March 9, 1998, Dynamite Radio, Inc., licensee of FM broadcast station WGTK, Middlebury, Vermont, filed a Petition for Rule Making to change the table of assignments at Middlebury and Berlin, Vermont.

Attached hereto, is an engineering exhibit in support of said petition. Kindly associate the attached supplement with our March 9, 1998 Petition for Rule Making.

I have reviewed the attached exhibit, and in accordance with section 1.52 of the Commission's rules, I hereby verify the attached document.

If you have any questions, please contact the undersigned directly.

Sincerely,



Anthony A. Neri, President  
Dynamite Radio, Inc.  
WGTK (FM) Middlebury, VT

Telephone: (802) 388-4101

Dynamite Radio, Inc.  
WGTK Radio  
74 Exchange Street  
Middlebury, Vermont 05753

ENGINEERING STATEMENT IN  
SUPPORT OF PETITION  
FOR RULEMAKING  
CHANNEL 265C2 - BERLIN, VT

Dynamite Radio, Inc.  
Middlebury, VT

April 6, 1998

Prepared for: Mr. Anthony Neri  
Dynamite Radio, Inc.  
74 Exchange Street  
Middlebury, VT 05753

**CARL E. SMITH CONSULTING ENGINEERS**

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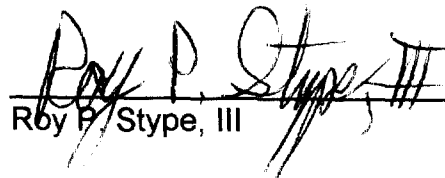
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ENGINEERING AFFIDAVIT

State of Ohio                                 )  
  ) ss:  
County of Summit                         )

Roy P. Stype, III, being duly sworn, deposes and states that he is a graduate Electrical Engineer, a qualified and experienced Communications Consulting Engineer whose works are a matter of record with the Federal Communications Commission and that he is a member of the Firm of "Carl E. Smith Consulting Engineers" located at 2324 North Cleveland-Massillon Road in the Township of Bath, County of Summit, State of Ohio, and that the Firm has been retained by Dynamite Radio, Inc., to prepare the attached "Engineering Statement In Support Of Petition For Rulemaking - Channel 265C2 - Berlin, VT."

The deponent states that the Exhibit was prepared by him or under his direction and is true of his own knowledge, except as to statements made on information and belief and as to such statements, he believes them to be true.

  
\_\_\_\_\_  
Roy P. Stype, III

Subscribed and sworn to before me on **April 6, 1998.**

  
\_\_\_\_\_  
Notary Public

/SEAL/

GAIL M. ELROD, Notary Public  
Residence - Summit County  
State Wide Jurisdiction, Ohio  
My Commission Expires May 28, 2002

## ENGINEERING STATEMENT

This engineering exhibit is prepared on behalf of Dynamite Radio, Inc., licensee of Radio Station WGTK(FM) - Middlebury, Vermont. It supports a petition to amend the FM Table of Allotments to upgrade WGTK to a Class C2 facility and change its community of license to Berlin, Vermont. The data contained in this exhibit shows that it is possible to substitute Channel 265C2 in Berlin, Vermont, for Channel 265A in Middlebury, Vermont, for use by WGTK, provided that Canadian concurrence can be obtained for Channel 265C2 in Berlin as a specially negotiated short spaced limited allotment.

The geographic coordinates for Berlin are:

NL - 44° 12' 51"  
WL - 72° 36' 54"

This places Berlin within Zone II, as defined by Section 73.205(c) of the FCC Rules. Accordingly, as outlined in Section 73.210(a) of the FCC Rules, the allotment of a Class C2 channel to Berlin is permitted. The studies contained in this exhibit were conducted from a site 10.0 kilometers north of Berlin. The geographic coordinates of this site are:

NL - 44° 18' 15"  
WL - 72° 37' 24"

This site also falls within Zone II, permitting the operation of a Class C2 facility from this site.

Table 1.0 is an FM allocation study for Channel 265C2 from the site described above. An examination of this table shows that operation on Channel 265C2 from this

site would be short spaced to the present operation of WGTK on Channel 265A and also to two Canadian stations:

CBF-FM	Montreal, QU	Channel 264C1
CBF-10F	Sherbrooke, QU	Channel 266B

The short spacing to the authorized operation of WGTK will not pose any problems since this channel will be deleted if Channel 265C2 is allotted to Berlin, as proposed herein. Furthermore, under the provisions of Sections 1.420(g) and 1.420(i) of the FCC Rules, this conflict with the authorized operation of WGTK will permit the license for WGTK to be modified to specify operation on Channel 265C2 in Berlin, regardless of other expressions of interest which might be received.

The short spacings to CBF-FM and CBF-10F are also permitted pursuant to the September 7, 1984 Working Arrangement for Allotment and Assignment of FM Broadcasting Channels 201 through 300 Under the Canadian-U.S.A. FM Broadcasting Agreement of 1947, as amended. Paragraph 3.5.2 of this working arrangement provides for specially negotiated short spaced limited allotments in cases where the required spacing is not met between U.S. and Canadian facilities, provided that the required protection is provided. In this particular case, the required protection will be provided to CBF-FM and CBF-10F so long as the predicted WGTK 48 dBu F(50,10) contour does not overlap the predicted 54 dBu F(50,50) contour of either of these short spaced stations on Canadian soil. Domestically, Class C2 stations are protected to their 60 dBu contour, as outlined in Section 73.215 of the FCC Rules. Thus, in order to prevent WGTK from receiving interference from either of these stations, there can be no overlap between the WGTK 60 dBu F(50,50) contour and the 54 dBu F(50,10) contour of either of these stations on U.S. soil. In evaluating compliance with these

requirements, WGTK was assumed to be operating from the reference coordinates outlined above with maximum Class C2 facilities of 50 kilowatts effective radiated power at 150 meters above average terrain utilizing the directional pattern outlined in Table 1.1 and Figure 1.1. CBF-FM was assumed to be operating from its authorized site with maximum Class C1 facilities of 100 kilowatts effective radiated power at 300 meters above average terrain and CBF-10F was assumed to be operating from its authorized site with maximum Class B facilities of 50 kilowatts effective radiated power at 150 meters above average terrain. Figure 1.2 depicts these contours on an appropriate map base. As shown in this figure, all overlap caused to CBF-FM and CBF-10F falls on U.S. soil and there will be no overlap received by WGTK from either CBF-FM or CBF-10F. Accordingly, based on the above information, the proposed facilities fully comply with this working arrangement. Thus, it is respectfully requested that Canadian concurrence be requested for Channel 265C2 in Berlin as a specially negotiated short spaced limited allotment.

Figure 1.3 is a map exhibit showing the predicted 3.16 mV/m (city grade) contour for the site specified above for Channel 265C2 in Berlin. This contour was projected assuming maximum Class C2 facilities of 50 kilowatts effective radiated power at 150 meters above average terrain and the directional pattern outlined in Table 1.1 and Figure 1.1, assuming uniform terrain. As shown in this figure, it will be possible to provide city grade service to all of Berlin on Channel 265C2 from the proposed reference coordinates. It should be noted that neither Middlebury nor Berlin is located in an urbanized area, as defined by the 1990 U.S. Census. Furthermore, the predicted city grade contour for both the present Class A operation of WGTK in Middlebury and the proposed Class C2 operation in Berlin fail to encompass any portion of any such urban-

urbanized area. Thus, no showing is required to document the independence of Berlin from any such urbanized area.

It should be noted that Berlin (population 2561<sup>1</sup>) presently has no local radio service. Thus, the proposal outlined herein would provide Berlin with its first local service, advancing the FCC's allotment priorities. Furthermore, the deletion of Channel 265A would not deprive Middlebury (population 8034) of its only local service, as WFAD(AM) and WRMC-FM would remain licensed to Middlebury.

Figure 1.4 is a map exhibit showing the predicted 1 mV/m contour for Channel 265C2 in Berlin for operation with maximum Class C2 facilities from the coordinates outlined above utilizing the directional pattern outlined in Table 1.1 and Figure 1.1. This figure also shows the predicted 1 mV/m contour for the present operation of WGTK, assuming nondirectional operation with an effective radiated power of 3 kilowatts at 100 meters above average terrain. Both of these contours were projected assuming uniform terrain. Table 1.4 presents detailed data on the present and proposed populations and areas, as well as the loss and gain areas. It should be noted that the entire area encompassed by these contours, including the loss and gain areas, is well served, receiving five or more full time aural services.

In summary, Channel 265C2 can be allotted to Berlin, Vermont, as a specially negotiated short spaced limited allotment with respect to Canada, in place of the present allotment of Channel 265A to Middlebury, Vermont, to permit the WGTK operating facilities to be upgraded. This proposed reallocation will provide a first local service to Berlin, thus advancing the FCC's allotment objectives.

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<sup>1</sup>All population data in this exhibit is extracted from the 1990 U.S. Census.



TABLE 1.0

FM ALLOCATION STUDY - CHANNEL 265C2 (100.9 MHz) - BERLIN, VT

DYNAMITE RADIO, INC.  
MIDDLEBURY, VT

STUDY COORDINATES: 44/18/15 72/37/24

STATION	LOCATION	CHANNEL	CLASS	SPACING (km)	REQUIRED SPACING*	NOTES
WRUV	Burlington, VT	211	A	49.78	15.0	
WRUV	Burlington, VT	211	A	50.08	15.0	2
ALLOTMENT	Montreal, QU	212	B	153.85	24.0	12
ALLOTMENT	Magog, QU	262	A	113.31	69.0	3, 12
RULEMAKING	Sherbrooke, QU	262	A	132.08	69.0	9
WKBE	Warrensburg, NY	262	B1	134.21	56.0	
WXXK	Lebanon, NH	263	C3	76.79	56.0	1
WVAY	Wilmington, VT	264	A	151.38	106.0	
CBFFM	Montreal, QU	264	C1	153.85	195.0	11
WTBM	Mexico, ME	264	A	161.43	106.0	
WZLX	Boston, MA	264	B	250.75	169.0	
WGTK	Middlebury, VT	265	A	53.03	166.0	3, 11
WYNZ	Westbrook, ME	265	B1	201.68	200.0	1
WKLI	Albany, NY	265	A	202.20	166.0	
WRNX	Amherst, MA	265	A	222.35	166.0	1
ALLOTMENT	Donnacona, QU	265	B	286.70	237.0	12
NEW	Donnacona, QU	265	B	286.70	237.0	
CBF10F	Sherbrooke, QU	266	B	136.56	164.0	11
WGIRFM	Manchester, NH	266	B	168.98	169.0	
CHEQFM	Smiths Falls, ON	266	C1	288.58	195.0	3
WYKRFM	Haverhill, NH	267	A	55.49	55.0	
WCPV	Essex, NY	267	A	65.56	55.0	
WEXP	Brandon, VT	268	A	68.89	55.0	2
WBHG	Meredith, NH	268	A	119.75	55.0	1
ALLOTMENT	Montreal, QU	268	A	157.58	69.0	12

\* Required Spacing Per Section 73.207 of The FCC Rules

TABLE 1.0 (cont'd)

FM ALLOCATION STUDY - CHANNEL 265C2 (100.9 MHz) - BERLIN, VT

-----  
DYNAMITE RADIO, INC.  
MIDDLEBURY, VT

Notes:

- |                                      |                                  |
|--------------------------------------|----------------------------------|
| 1 - Applied For Under Section 73.215 | 7 - Pending Application          |
| 2 - Construction Permit              | 8 - Petition For Reconsideration |
| 3 - Channel Deletion Proposed        | 9 - Proposed Rulemaking          |
| 4 - Move From This Channel Ordered   | 10 - Rulemaking Petition         |
| 5 - Move to This Channel Ordered     | 11 - Short-Spaced                |
| 6 - One Step Reference Site          | 12 - Vacant Allotment            |

TABLE 1.1

PROPOSED WGTK  
DIRECTIONAL PATTERN

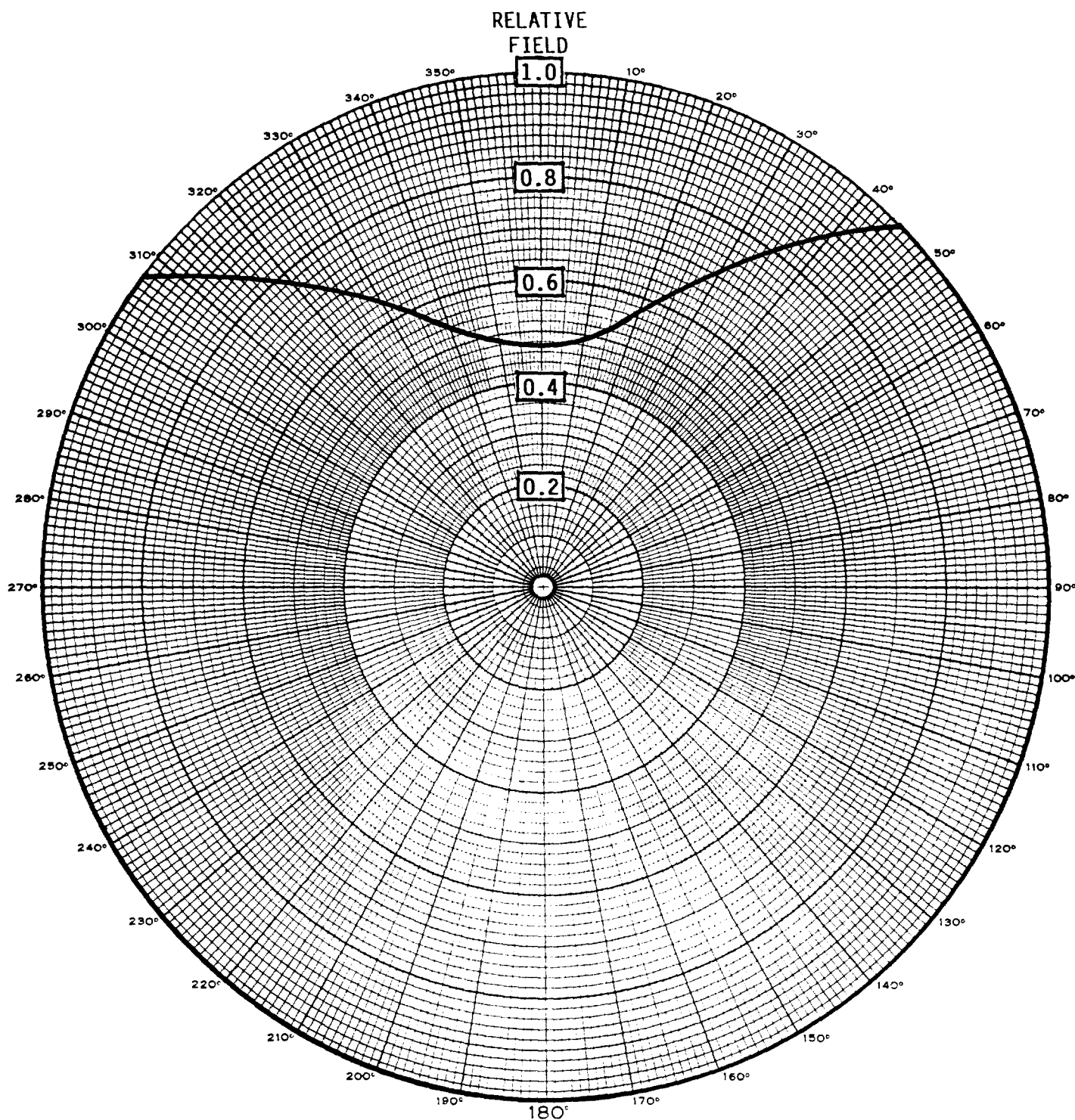
Dynamite Radio, Inc.  
 Middlebury, VT

<u>Azimuth</u> <u>(Degrees)</u>	<u>Relative</u> <u>Field</u>	<u>(dBk)</u>	<u>ERP</u> <u>(kW)</u>
0	0.460	10.24	10.58
10	0.480	10.61	11.52
20	0.570	12.11	16.25
30	0.710	14.01	25.21
40	0.890	15.98	39.61
45	0.990	16.90	49.01
50	1.000	16.99	50.00
60	1.000	16.99	50.00
70	1.000	16.99	50.00
80	1.000	16.99	50.00
90	1.000	16.99	50.00
100	1.000	16.99	50.00
110	1.000	16.99	50.00
120	1.000	16.99	50.00
130	1.000	16.99	50.00
135	1.000	16.99	50.00
140	1.000	16.99	50.00
150	1.000	16.99	50.00
160	1.000	16.99	50.00
170	1.000	16.99	50.00
180	1.000	16.99	50.00
190	1.000	16.99	50.00
200	1.000	16.99	50.00

TABLE 1.1 (cont'd)

<u>Azimuth</u> <u>(Degrees)</u>	<u>Relative</u> <u>Field</u>	<u>(dBk)</u>	<u>ERP</u> <u>(kW)</u>
210	1.000	16.99	50.00
220	1.000	16.99	50.00
225	1.000	16.99	50.00
230	1.000	16.99	50.00
240	1.000	16.99	50.00
250	1.000	16.99	50.00
260	1.000	16.99	50.00
270	1.000	16.99	50.00
280	1.000	16.99	50.00
290	1.000	16.99	50.00
300	1.000	16.99	50.00
310	0.950	16.54	45.13
315	0.850	15.58	36.13
320	0.780	14.83	30.42
330	0.640	13.11	20.48
340	0.540	11.64	14.58
350	0.480	10.61	11.52

Maximum ERP=50.00 kilowatts=16.99 dBk



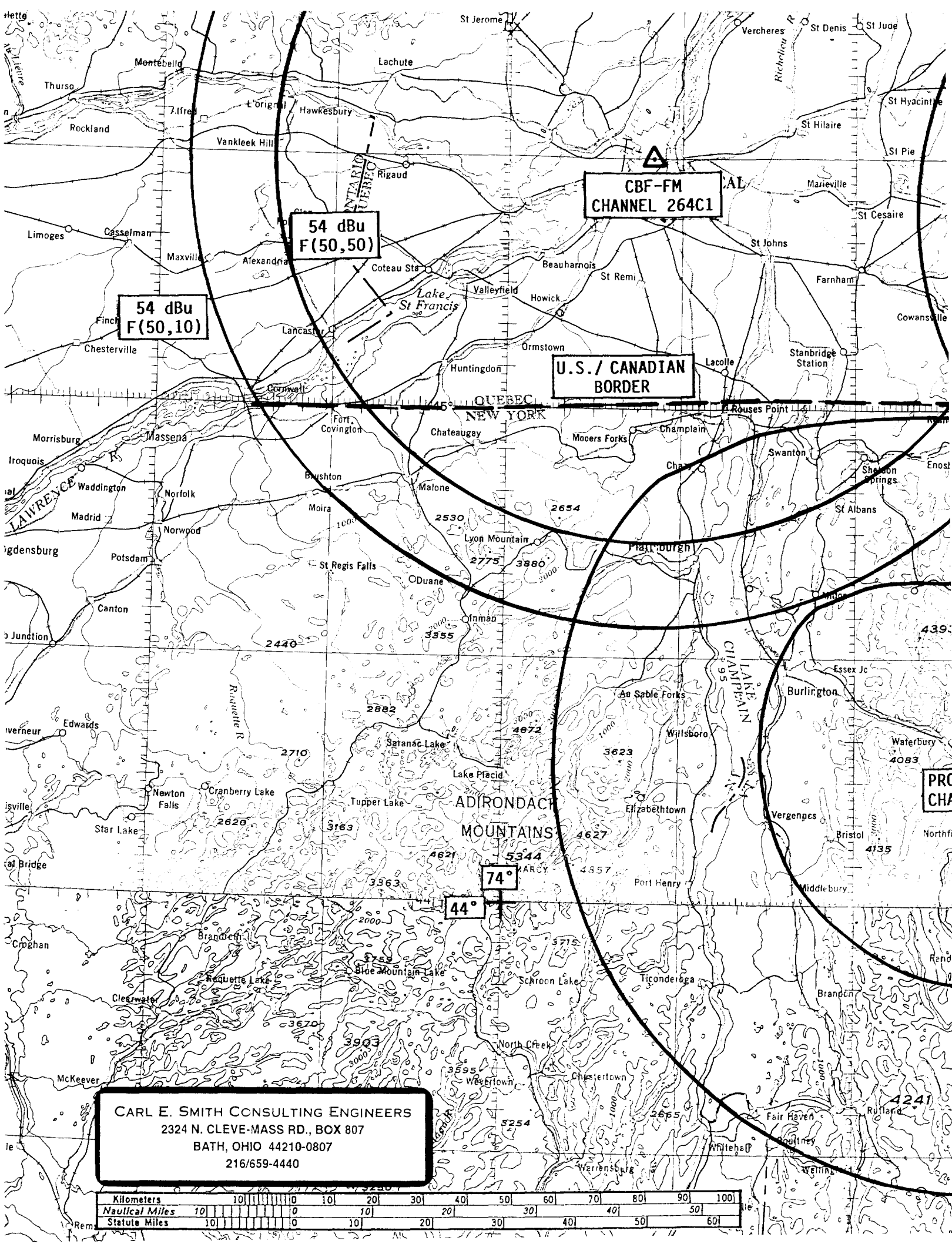
MAXIMUM ERP = 50 kilowatts

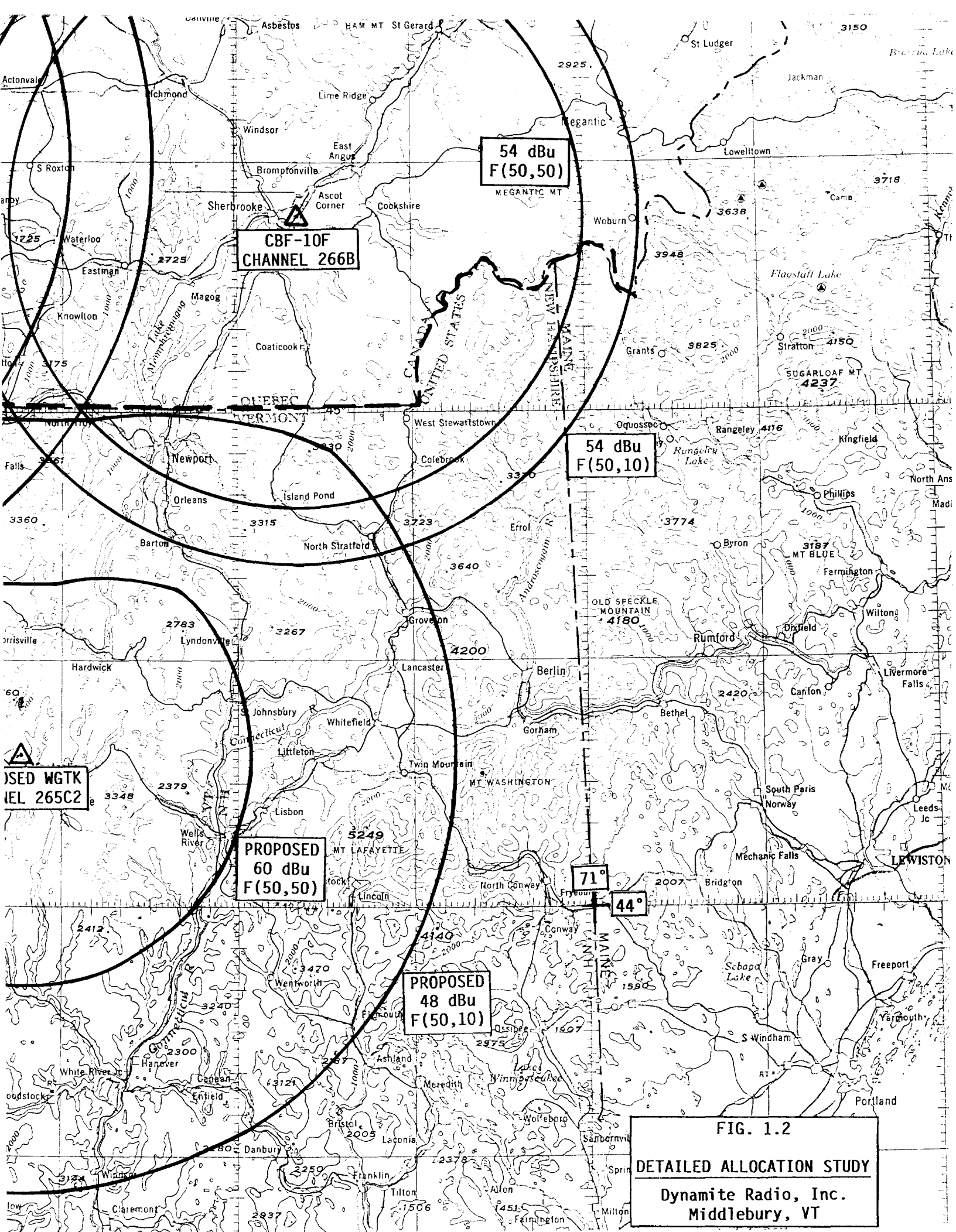
FIG. 1.1

PROPOSED WGTK  
DIRECTIONAL PATTERN  
(CHANNEL 265C2 - BERLIN, VT)

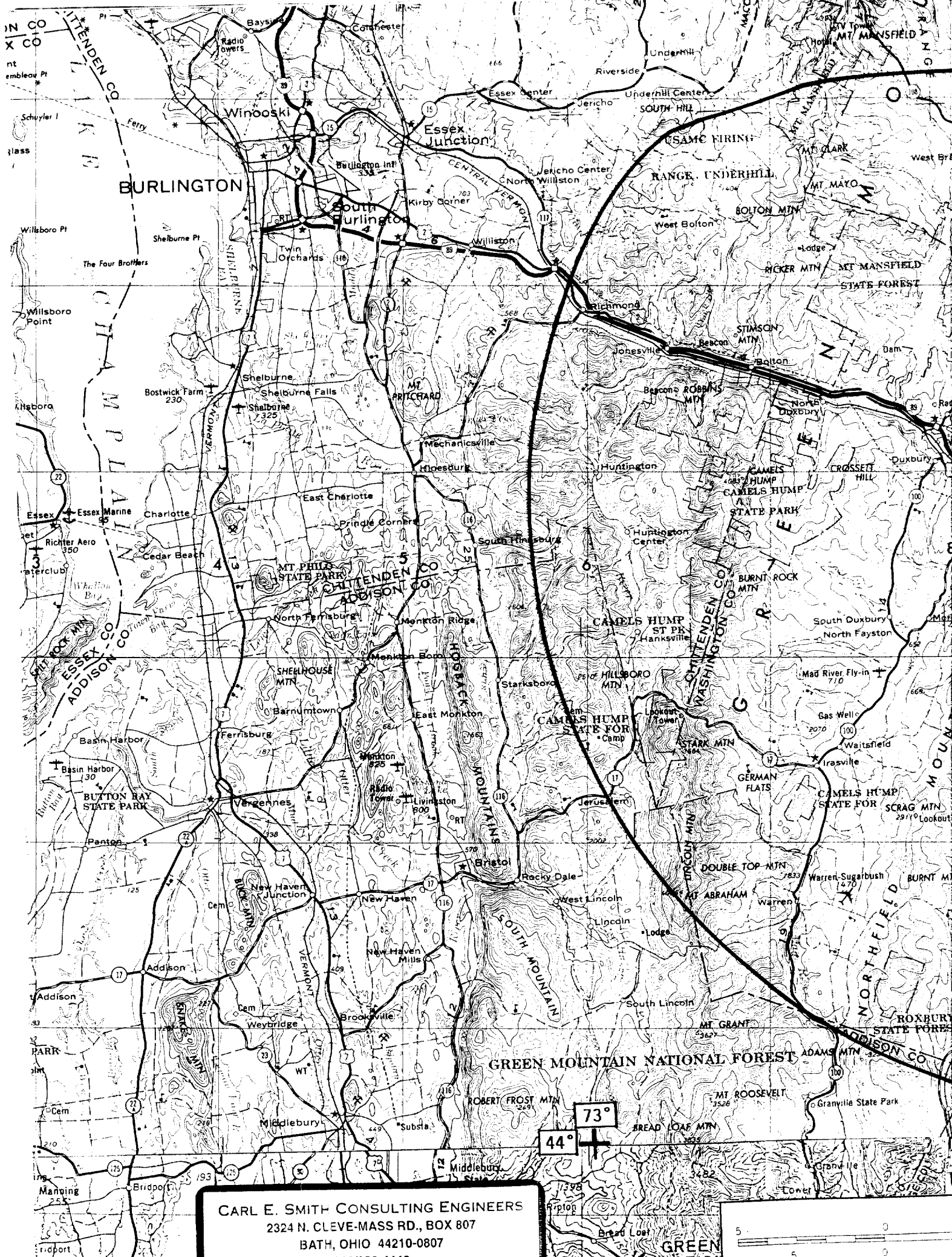
Dynamite Radio, Inc.  
Middlebury, VT

CARL E. SMITH CONSULTING ENGINEERS  
2324 N. CLEVE-MASS RD., BOX 807  
BATH, OHIO 44210-0807  
216/659-4440





**FIG. 1.2**  
**DETAILED ALLOCATION STUDY**  
**Dynamite Radio, Inc.**  
**Middlebury, VT**



CARL E. SMITH CONSULTING ENGINEERS  
2324 N. CLEVE-MASS RD., BOX 807  
BATH, OHIO 44210-0807  
241650 AAAA



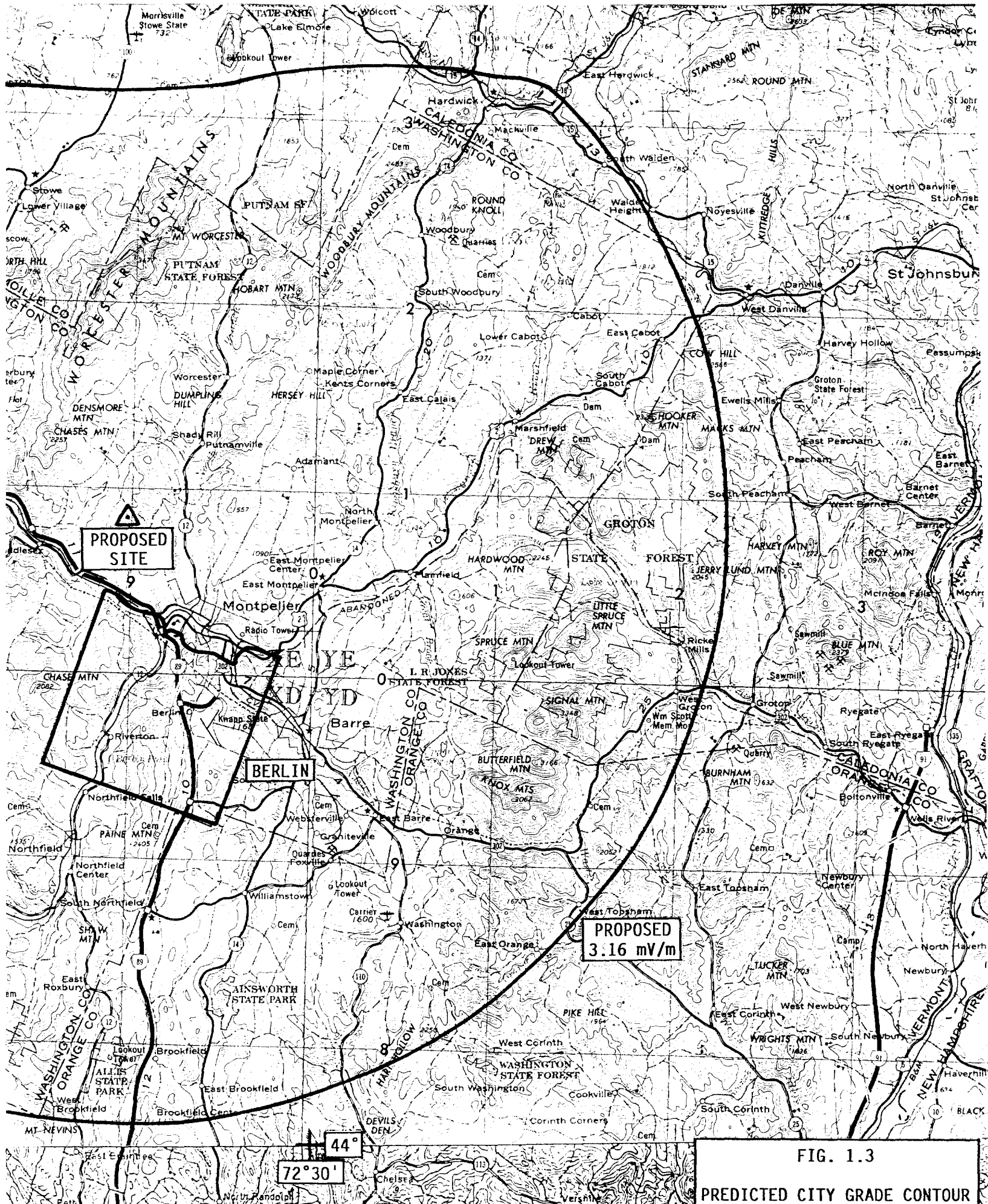
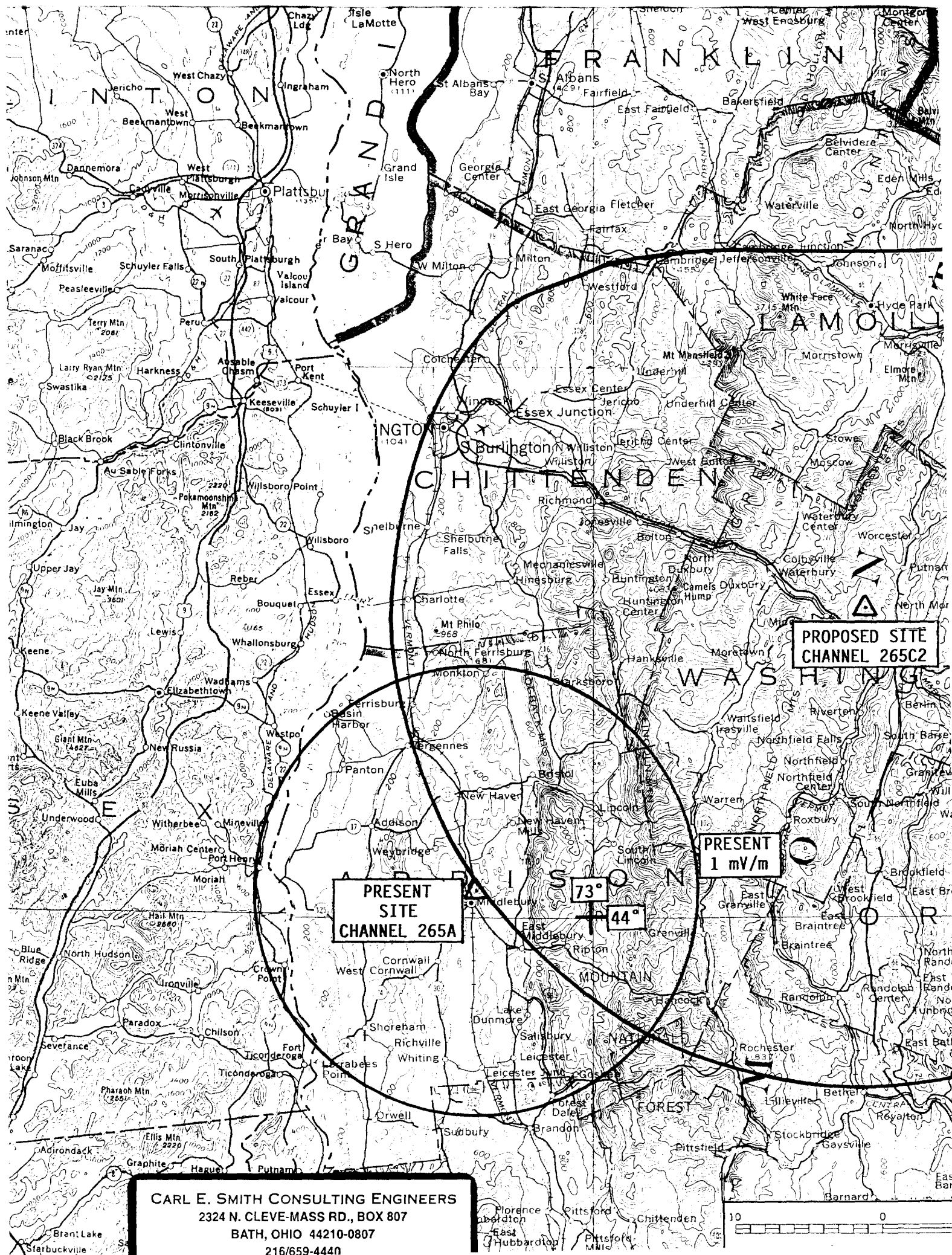
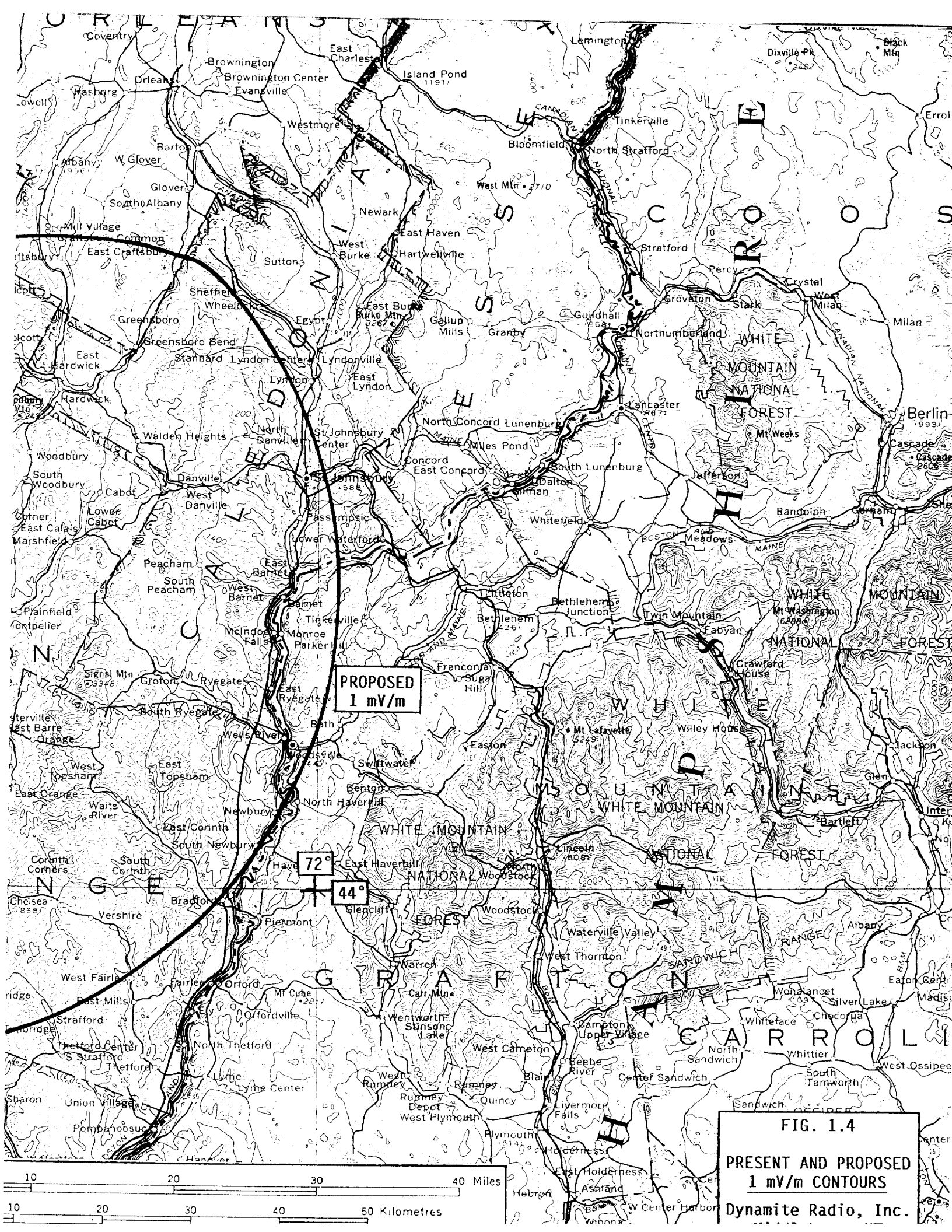


FIG. 1.3  
PREDICTED CITY GRADE CONTOUR  
CHANNEL 265C2 - BERLIN, VT  
Dynamite Radio, Inc.



CARL E. SMITH CONSULTING ENGINEERS  
2324 N. CLEVE-MASS RD., BOX 807  
BATH, OHIO 44210-0807  
216/659-4440



PROPOSED  
1 mV/m

72°

44°

FIG. 1.4

PRESENT AND PROPOSED  
1 mV/m CONTOURS

Dynamite Radio, Inc.

TABLE 1.4  
PRESENT AND PROPOSED  
AREA AND POPULATION  
Dynamite Radio, Inc.  
Middlebury, VT

	Area ( <u>Square Kilometers</u> )	Population ( <u>1990 Census</u> )
Present	1,843.4	31,711
Gain	7,062.4	199,320
Loss	1012.5	18,459
Proposed	7,893.3	212,572
Net Gain	6,049.9	180,861